

REMARKS

Status of the Claims

Claims 19-39 are pending. Claims 1-18 are canceled. No new matter is added in the above amendment.

Issues Related to Drawing Objections/Explanation of the Drawing Changes Made

The drawings are objected to "because they fail to show necessary textual labels of features or symbols..." More specifically, the Examiner suggests that "See Figures 3 & 4" and related boxes be amended.

This objection is respectfully traversed. However, the objection is moot in view of the drawing amendment. In the amended drawings, the text at issue is replaced with text suggested by the Examiner.

Accordingly, reconsideration and withdrawal of this rejection are requested.

Issues Related to the Specification

The office action directed that a "summary" be included in the application. Although a "summary" is not a specific requirement as per 37 C.F.R. § 1.73, the above amendment removes this issue altogether.

Claim Objections

The original claims were objected to because of informalities. This objection is moot in view of the above amendment.

Issues Under 35 U.S.C. § 112, Second Paragraph

Several claims were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested. However, in view of the cancellation of the rejected claims in the above amendment, this rejection is moot.

Accordingly, reconsideration and withdrawal thereof are requested.

Issues Under 35 U.S.C. § 101

The former claims were rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter as being directed to an abstract idea which lacks a “useful, concrete and tangible result.” This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

However, in view of the above claim amendment, this rejection is moot.

Further, it is respectfully submitted that the pending claims clearly recite a method that produces a “useful, concrete and tangible result,” namely the generation of a model defined by parameters (claim 19) and the determination of the relevance of a set of images relative to a specified visual object category (claim 28). In these claims, Applicants affirmatively recite the use, tangible and concrete result of the present invention. Accordingly, it is respectfully

submitted that the claimed method produces a useful, concrete and tangible result, and does not simply provide for manipulation of an idea. Thus, it is respectfully requested that a rejection of the claims under 35 U.S.C. § 101 is not appropriate.

Issues Under 35 U.S.C. § 103

Former claims 1, 6-8, and 11-18 were rejected under 35 U.S.C. § 103 as being allegedly obvious over Mojsilovic et al., in view of Jain et al. This rejection is respectfully traversed. However, this rejection is moot in view of the above amendment, which cancelled the claims at issue.

Applicants respectfully submit that the rejection is not applicable to the pending claims.

The primary reference Mojsilovic, discloses a method of deriving a plurality of semantic categories for representing important semantic cues in images. In the method of the reference, each semantic category is modeled through a combination of perceptual features that define the semantics of that category and that discriminate category from other categories.

This method is distinguishable from the present claims. Embodiments of the present invention include transforming a visual object category into a model defining features of the visual object category and a spatial relationship there between.

Applicants respectfully submit that the issue appears to rest on what is meant by a “visual object category model.” This has two aspects: (i) the visual object category, and (ii) learning or generating the model. The system described in Mojsilovic fails to disclose or suggest the learning of a visual object category model from a plurality of images. On the other hand, in the prior art method, a simple image is specified by the user as being characteristic of the image type

for which a search is to be conducted. This image is then broken down into its “semantic memory”, which defines the specified image, and then the system can use this semantic meaning to compile a similarity metric between all of the images in a dataset and the specified image and rank the images in the dataset according to the computed similarity metric.

In contrast, the manner in which the visual object category model is learned enables such learning to be conducted automatically based on a number of images. This may be partially supervised or completely unsupervised. Thus, using only the description “lion” or “car”, for example, the system of the present invention can learn a model best describing the visual object category without having to specify one single image – the resultant model is thus based on several images (which results in a much more robust system that can cope with variations in lighting, partial occlusion, etc.).

The deficiencies of the primary reference are not remedied by the secondary reference, Jain. The system described in Jain, matches images, not objects in images. Thus, as an example, if one image had a lion on the left and another image had a different lion on the right, then Jain’s method would not necessarily match the images. Thus, Jain does not have a visual object category model and cannot localize object instances in an image. Again, in contrast, the present invention learns a visual object category model, based on several images, and can thus identify a visual object category within any image, irrespective of where it appears in the image, any occlusion, variations in lighting, angle etc.

In order to establish a case of obviousness, the Supreme Court directs that “the scope and content of the prior art” is determined, and that the “differences between the prior art and the claims at issue are ascertained.” See Graham v. John Deere Co., 383 U.S. 1 (1966) and KSR

Int'l v. Teleflex, Inc., 550 U.S. ____ (2007). Additionally, "the prior art reference (or references when combined) must teach or suggest all of the claim limitations." See MPEP § 2143. In view of the differences outlined above, Applicants respectfully submit that the references, as applied in the previous office action, fail to render the claims obvious.

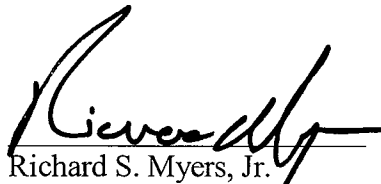
Petition for an Extension of Time

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants hereby petition for a three-month extension of time for filing a response to the outstanding Office Action. The extension fee in the amount of \$510.00 is filed herewith.

From the foregoing, further and favorable reconsideration in the form of a Notice of Allowability is requested, and such action is believed to be in order.

If there are any questions concerning this amendment, or the application in general, the Examiner is respectfully urged to telephone the undersigned at the number listed below.

Respectfully submitted,



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